

IN THE CLAIMS:

Claims 1 through 3, 5 through 20 and 22 through 28 are proposed to be amended herein. Please note that all claims currently pending and under consideration in the referenced application, following entry of the proposed amendments, are shown below. Please enter these claims as amended. Upon entry, this listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A method for fabricating an interconnect adjacent a contact of a semiconductor device structure, comprising:
depositing metal silicide directly ~~onto~~ on top of at least one exposed, doped area of the semiconductor device structure without substantially depositing metal silicide onto locations of the semiconductor device structure that are laterally adjacent ~~said the~~ at least one exposed, doped area; and
depositing an interconnect material onto ~~said the~~ metal silicide in situ with ~~said the~~ depositing said the metal silicide.
2. (currently amended) The method of claim 1, further comprising exposing ~~said the~~ at least one exposed, doped area of the semiconductor device structure to a plasma.
3. (currently amended) The method of claim 2, wherein ~~said the~~ exposing comprises exposing ~~said the~~ at least one exposed, doped area of the semiconductor device structure to a plasma comprising an activated species of at least one of nitrogen, hydrogen, and ammonia.
4. (original) The method of claim 1, further comprising cleaning the semiconductor device structure.

5. (currently amended) The method of claim 4, wherein ~~said~~ the cleaning includes employing a cleaning agent comprising at least one of chlorine, hydrochloric acid, and hydrofluoric acid.

6. (currently amended) The method of claim 1, further comprising cleaning the semiconductor device structure after ~~said~~ the depositing said metal silicide.

7. (currently amended) The method of claim 6, wherein ~~said~~ the cleaning includes employing a cleaning agent comprising at least one of chlorine, hydrochloric acid, and hydrofluoric acid.

8. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the metal silicide comprises depositing titanium silicide.

9. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises blanket depositing ~~said~~ the interconnect material.

10. (currently amended) The method of claim 9, further comprising patterning ~~said~~ the interconnect material.

11. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises selectively depositing ~~said~~ the interconnect material.

12. (currently amended) The method of claim 1, further comprising depositing a layer comprising electrically conductive material over ~~said~~ the interconnect material.

13. (currently amended) The method of claim 12, further comprising patterning ~~said~~ the layer.

14. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises depositing at least one of titanium and titanium nitride.

15. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the metal silicide comprises reacting a metallic precursor with a silicon-containing compound.

16. (currently amended) The method of claim 15, wherein ~~said~~ the reacting comprises reacting a metallic precursor comprising at least one of a titanium tetrahalide, a subhalide, and a $Ti(NR_2)_4$, where R is selected from the group consisting of hydrogen and alkyl groups, with ~~said~~ the silicon-containing compound.

17. (currently amended) The method of claim 15, wherein ~~said~~ the reacting comprises reacting ~~said~~ the metallic precursor with a silicon-containing compound comprising at least one of a silane, a dichlorosilane, and a Si_nH_{2n+2} , where n is an integer equal to zero or more.

18. (currently amended) The method of claim 1, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises reacting a metallic precursor with a reactant comprising at least one of ammonia, nitrogen trifluoride, an organic silane reactive gas, and an activated species.

19. (currently amended) The method of claim 18, wherein ~~said~~ the reacting comprises reacting a metallic precursor comprising at least one of a titanium tetrahalide and a $Ti(NR_2)_4$, where R is selected from the group consisting of hydrogen and alkyl groups, with ~~said~~ the reactant.

20. (currently amended) A method for fabricating a selective contact and a local interconnect on a semiconductor device structure, comprising:
depositing a contact material directly ~~onto~~ on top of an exposed active device region of the semiconductor device structure without substantially depositing contact material onto

locations of the semiconductor device structure that are laterally adjacent ~~said~~ the exposed active device region; and
depositing an interconnect material onto ~~said~~ the contact material in situ with ~~said~~ the depositing ~~said~~ the contact material.

21. (original) The method of claim 20, further comprising exposing the semiconductor device structure to a plasma.

22. (currently amended) The method of claim 21, wherein ~~said~~ the exposing comprises exposing the semiconductor device structure to a nitrogen-ammonia plasma.

23. (currently amended) The method of claim 20, further comprising depositing an electrically conductive material onto ~~said~~ the interconnect material.

24. (currently amended) The method of claim 20, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises selectively depositing ~~said~~ the interconnect material.

25. (currently amended) The method of claim 20, wherein ~~said~~ the depositing ~~said~~ the interconnect material comprises blanket depositing ~~said~~ the interconnect material.

26. (currently amended) The method of claim 25, further comprising patterning ~~said~~ the interconnect material to form at least one interconnect therefrom over ~~said~~ the contact material.

27. (currently amended) The method of claim 20, wherein ~~said~~ the depositing ~~said~~ the contact material comprises depositing a selective contact material.

28. (currently amended) The method of claim 27, wherein ~~said~~ the depositing ~~said~~ the selective contact material comprises depositing a metal silicide.